

Sub Body

What is claimed is :

1. A broadcasting service system using a mobile communication terminal, comprising :

5 a converting mean which converts a video and audio signal provided from a moving picture information into a format agreed with a signal and transmission standard of a mobile communication network ; and

10 a transmitting mean which transmits the converted video and audio signal to a subscriber through a certain transmission channel of the mobile communication network.

2. The broadcasting service system according to claim 1, wherein the video and audio information agrees with a first signal standard for a television broadcasting, the converted digital video and audio information agreeable to the mobile communication network agrees with a second signal standard, and the first and second signal standard agree with a signal standard which is capable of converting between different systems.

3. The broadcasting service system according to claim 2, wherein the first signal standard agrees with a MPEG2 (Moving Picture Experts Group2), the second signal standard agrees with a MPEG4 (Moving Picture Experts Group4), H.26L, H.263, and H.26X.

4. The broadcasting service system according to claim 1, wherein the converting mean includes a coding mean which codes the digital video and

audio data agreeable to the digital television broadcasting system and formats the coded video and audio data agreeable to the mobile communication network transmission, and a converting-controlling mean which convert-controls a transmission rate for agreeing with the transmission rate of the mobile communication network.

5. The broadcasting service system according to claim 1, wherein the converting mean includes a digital signal converting mean which converts an analog television broadcasting signal into a digital signal, a coding mean which formats the converted broadcasting signal having moving picture and audio and codes it, and a converting-controlling mean which convert-controls transmission rate in order to agree with the transmission rate of the mobile communication network.

10
15 6. The broadcasting service system according to claim 1, wherein the transmitting mean includes a putting mean which puts the formatted digital video and audio data on a transmission channel, and a formatting-transmission mean which formats and transmits the digital video, audio data with additional broadcasting information.

20
25 7. The broadcasting service system according to claim 1, wherein the EPG (Electronic Program Guide) data is formatted and transmitted with the video, audio signal and additional information.

8. The broadcasting service system according to claim 1, wherein the

transmitting and converting means transmit data through a connected transmission channel between a mobile communication subscriber and a base station.

5 9. The broadcasting service system according to claim 1, wherein the converting and transmitting mean allot at least one transmission channel on the mobile communication network, and transmit the video and audio signal through the allotted channel.

10 10. The broadcasting service system according to claim 1, wherein the television broadcasting service system using the mobile communication includes a identifying mean which identifies a subscriber subscribed the television video and audio signal between mobile communication subscribers, and a payment demanding mean which demands a payment corresponding to a reception of the video and audio signal to the identified subscriber.

15 11. A mobile communication terminal, comprising :
 a digital video and audio data reception mean ;
 a decoding mean which decodes the received digital video and audio
20 data ; and
 an outputting mean which outputs the decoded video and audio signal.

25 12. The mobile communication terminal according to claim 11, wherein the mobile communication terminal includes a receiving-decoding mean which receives and decodes the EPG (Electronic Program Guide) signal from the

television signal transmitted from the mobile communication network, and a transmitting mean which transmits a subscriber search answer of the decoded EPG (Electronic Program Guide) data to the service system.

5 13. The mobile communication terminal according to claim 11, wherein
the mobile communication terminal is one of a cellular phone , PCS terminal, or
IMT-2000 terminal.

10 14. The mobile communication terminal according to claim 11, wherein
the mobile communication terminal includes a web browser mean for searching
the EPG data and additional information transmitted from the mobile
communication network.

15 15. A broadcasting service system using a mobile communication
terminal, comprising :

a digital video and audio input mean which is provided a digital video and
audio signal from a provider of the pertinent information ;

a transcoding mean which converts the digital video and audio signal
inputted from the digital video and audio input mean into a format and
20 transmission rate agreeable to the mobile communication network ; and

a transmitting mean which puts the transcoded-converted digital
broadcasting signal on a certain allotted channel of the mobile communication
network, and transmits it.

25 16. The broadcasting service system according to claim 15, wherein

the broadcasting service system includes a EPG (Electronic Program Guide) data converting mean which converts the EPG (Electronic Program Guide) data for selecting the digital broadcasting channel into a format agreeable to the mobile communication network, and a additional information converting mean which 5 converts the additional information of the digital broadcasting into a format agreeable to the mobile communication network.

17. The broadcasting service system according to claim 16, wherein
the broadcasting service system transmits the EPG (Electronic Program Guide)
data and additional information as the agreeable format to the mobile
communication network.
10

18. The broadcasting service system according to claim 16, wherein
the EPG (Electronic Program Guide) data converting mean includes a decoding
mean which decodes the inputted EPG (Electronic Program Guide) stream of the
digital broadcasting, a restoring mean which restores the inputted EPG (Electronic
Program Guide) stream of the digital broadcasting, a data base mean which stores
a information corresponding to the restored EPG (Electronic Program Guide) data,
an EPG (Electronic Program Guide) information outputting mean which outputs
20 the EPG (Electronic Program Guide) information from the data base
corresponding to a subscriber request, and a converting mean which converts the
additional information of the digital broadcasting into a format agreeable to the
mobile communication network.
15

25 19. A broadcasting service system using a mobile communication

terminal, comprising :

a digital signal processing mean for receiving the digital broadcasting signal and providing a broadcasting program to the mobile communication network ;

5 a medium storing mean for storing the broadcasting information processed by the digital signal processing mean ;

a data processing and converting mean for converting the EPG (Electronic Program Guide) data and additional information processed by the digital signal processing mean into a signal format agreed with the mobile communication network ; and

10 a transcoder and transmission mean for receiving the video, audio data and additional information processed by the digital signal processing mean and converting it into a signal format agreeable to the mobile communication network and outputting it.

15 20. The broadcasting service system according to claim 19, wherein the digital signal processing mean includes a tuner for selecting the digital broadcasting signal inputted through a transmission medium such as a television broadcasting, satelite broadcasting and cable broadcasting, a demodulating mean for restoring the selected digital broadcasting signal, a de multiplexer for fetching the EPG and additional information from the demodulated digital broadcasting signal, and a decoder for decoding the video and audio signal from the demodulated digital broadcasting signal.

25 21. The broadcasting service system according to claim 19, wherein

the data processing and converting mean includes a EPG (Electronic Program Guide) data decoding mean for decoding the EPG (Electronic Program Guide) data of the digital broadcasting, a signal converting mean for converting the decoded EPG (Electronic Program Guide) data into a signal format agreed with
5 the mobile communication network, a protocol converting mean for converting the converted EPG (Electronic Program Guide) data into a protocol agreed with the mobile communication network, a decoding mean for decoding the additional information of the digital broadcasting, an additional information signal converting mean for converting the decoded additional information into a signal format agreed
10 with the mobile communication network, an additional information protocol converting mean for converting the converted additional information into a protocol agreed with the mobile communication network.

22. The broadcasting service system according to claim 19, wherein
15 the transcoder and transmission mean includes a transcoder for transcoding the digital broadcasting video, audio signal into a format agreed with the mobile communication network, a transmission rate control mean for controlling the transcoder transmission rate agreeable to the mobile communication network, a converting mean for converting the output of the data processing and converting
20 mean into a data protocol agreeable to the mobile communication network, a synchronization processing mean for synchronizing synchronization request information during the transcoding and protocol converting, and a transmitting mean for transmitting the processed data in real time by allotting it on the certain channel of the wireless communication network

23. A broadcasting service method using a mobile communication terminal, comprising :

converting a broadcasting signal including digital video and audio data into a format agreed with a signal and transmission standard of the mobile communication network ; and

transmitting the converted digital video and audio data to a subscriber through a certain transmission channel of the mobile communication network.

24. The method according to claim 23, wherein the converting process includes the steps of :

(a) converting a video and audio data of the digital broadcasting signal into the data agreeable to the standard and transmission rate of the mobile communication network ; and

(b) converting the EPG (Electronic Program Guide) data and additional information into the information agreeable to the standard and transmission rate of the mobile communication network.

25. The method according to claim 23, wherein the transmission process includes the steps of :

(a) synchronization controlling the synchronization request information of the converted digital video and audio data, EPG (Electronic Program Guide) data and additional information ;

(b) converting the data into a protocol agreeable to the mobile communication network ; and

(c) allotting a certain transmission channel and putting the digital data

corresponding to the protocol of the mobile communication network on the certain transmission channel.

26. A broadcasting service method using a mobile communication
5 terminal, comprising :

transmitting the EPG (Electronic Program Guide) data to a subscriber through the mobile communication network when there is a broadcasting service request from the subscriber ;

10 selecting a channel by searching the transmitted EPG (Electronic Program Guide) data :

converting the video and audio data of the selected channel into the data agreed with the standard of the mobile communication network ; and

15 transmitting the converted data through the certain transmission channel of the mobile communication network.

27. The method according to claim 26, wherein a right for watching the digital broadcasting is granted to a subscriber, and the EPG (Electronic Program Guide) information is provided to the subscriber after confirming and certifying the right.

20 A
28. The method according to claim 26 or claim 27, wherein an ID is granted to the mobile communication subscriber, and a payment for the digital broadcasting service is required to the subscriber by identifying the ID.

25 29. A broadcasting service system using a mobile communication

terminal, comprising :

an analog broadcasting reception mean which receives an analog television broadcasting signal ;

5 a digital converting mean which converts the analog broadcasting signal received by the analog broadcasting reception mean into a digital signal ;

an encoding-converting mean which converts the digital broadcasting signal converted by the digital converting mean into a signal agreed with the mobile communication network ; and

10 an allotting-transmitting mean which allots the converted digital broadcasting signal by the encoding-converting mean on the certain transmission channel of the mobile communication network and transmits it.

30. The system according to claim 29, wherein the system includes a EPG (Electronic Program Guide) signal and additional information abstracting mean for abstracting the EPG (Electronic Program Guide) signal and additional information, and an encoding-converting mean for converting the abstracted EPG (Electronic Program Guide) signal and additional information into a signal agreed with the mobile communication network.

20 31. The system according to claim 29 or claim 30, wherein the encoding-converting mean encodes the analog/digital converted broadcasting signal into a format agreed with the mobile communication network such as a MPEG4 (Moving Picture Experts Group4), H.26L, H.263 and H.26X, and puts it on the transmission channel.

32. A mobile communication subscriber terminal, comprising :

a broadcasting reception mean which receives a broadcasting signal as a moving picture information ;

5 a communication processing mean which receives a call signal provided to the subscriber through the mobile communication network and restore-outputs the call signal, and coding-outputs a subscriber call signal through the mobile communication network ;

10 a decoding mean which restores the received broadcasting signal by the broadcasting reception mean ;

an outputting mean which outputs the restored broadcasting signal by the decoding mean for being watched on the mobile communication terminal ; and

15 a selecting mean for selecting the broadcasting signal reception mode and a mobile communication telephone call mode.

15 33. The terminal according to claim 32, wherein the broadcasting reception mean includes an antenna and a tuner, the decoding mean includes a demodulation mean for demodulating a video and audio of the analog television broadcasting signal selected from the tuner, and the outputting mean includes a speaker for outputting the demodulated voice signal and a monitor for displaying 20 the demodulated video signal when the television signal is the analog television broadcasting in order to watch the analog television broadcasting signal on the mobile communication terminal.

25 34. The terminal according to claim 32, wherein the broadcasting reception mean includes a bit stream reception mean for receiving the bit stream

from the terminal antenna and the digital broadcasting signal, the decoding mean includes a demodulation and restoring mean for demodulating the video and audio data of the digital television broadcasting signal and restoring the demodulated video and audio data, the outputting mean including the speaker for outputting the restored audio signal and the monitor for displaying the restored video signal when the broadcasting signal is the digital television broadcasting signal in order to watch the digital television broadcasting signal on the mobile communication terminal.

35. The terminal according to claim 32, 33 or 34, wherein the mobile communication subscriber terminal is one of a cellular phone, PCS terminal or IMT-2000 terminal.